

INADEQUATE SANITATION RESOURCES OR PRACTICES

(411k)

PARTICIPANT TYPE.....	INFANTS
HIGH RISK.....	No

RISK DESCRIPTION:

Routinely using inappropriate sanitation in preparation, handling, and storage of expressed human milk or formula

EXAMPLES OF INADEQUATE SANITATION RESOURCES:

- Limited or no access to a:
 - Safe water supply (documented by appropriate officials)
 - Heat source for sterilization
 - Refrigerator or freezer for storage

Failure to prepare, handle, and store bottles, storage containers, or breast pumps properly; examples include:

HUMAN MILK:

- Thawing in a microwave
- Refreezing
- Adding freshly expressed unrefrigerated human milk to frozen human milk
- Adding refrigerated human milk to frozen human milk in an amount greater than the amount of frozen human milk
- Feeding thawed human milk more than 24 hours after it was thawed
- Saving human milk from a used bottle for another feeding
- Failure to clean a breast pump per manufacturer's instruction

FORMULA:

- Storing at room temperature for more than one hour
- Failure to store prepared formula per manufacturer's instructions
- Using formula in a bottle one hour after the start of a feeding
- Saving formula from a used bottle for another feeding
- Failure to clean baby bottles properly

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ASK ABOUT:

- Access to safe water (not contaminated with nitrates, lead, or pesticides)
- Access to a working stove, refrigerator, and/or freezer
- Access to food preparation and storage utensils
- Caregiver's ability to read, follow, or understand instructions for handling formula
- Caregiver's knowledge about safe human milk and formula storage and handling practices

NUTRITION COUNSELING/EDUCATION TOPICS:

- Expressed human milk and prepared infant formula are perishable foods and must be handled and stored properly in order to be safe for consumption. Inappropriate sanitation practices can cause gastrointestinal infection and lead to vomiting, diarrhea and hospitalization.
- Sanitary procedures for handling and storing expressed human milk:
 - Use soap and hot water to wash hands, containers, and pump parts. Make sure the breast pump is clean as well.
 - If infant is less than 3 months old, or if instructed by a physician, boil bottles, nipples, rings, and caps in a large pot of water for five minutes.
 - Label and date the containers.
 - Refrigerate human milk for no longer than 72 hours.
 - There are variations in human milk storage guidelines among recognized entities. This recommendation is based on the AAP's guidelines. There is evidence that after 48 hours of refrigeration, human milk significantly loses important antibacterial and antioxidant properties. So it would be best to use expressed human milk as soon as possible or freeze it.
 - Freeze human milk for as long as three to six months.
 - To thaw frozen human milk, shake the bottle/bag gently while holding it under warm running water. Do not microwave or boil it. Use thawed human milk within 24 hours; do not refreeze.
 - The appropriate and safe way to add freshly expressed human milk to already frozen human milk is as follows:
 - Chill the freshly expressed human milk.
 - Add the chilled human milk to human milk that has been frozen for less than 24 hours.
 - Add a smaller amount of the chilled human milk to the container than the amount of frozen human milk in the container (i.e., if the container has 4 ounces of frozen human milk, add less than 4 ounces of chilled human milk).

NUTRITION COUNSELING/EDUCATION TOPICS (CON'T):

- Sanitary procedures for handling and storing infant formula:
 - Use soap and hot water to wash hands, bottles, nipples, rings, and caps.
 - If infant is less than 3 months old, or if instructed by a physician, boil bottles, nipples, rings, and caps in a large pot of water for five minutes.
 - Follow primary care provider's recommendation on the type of water to use for mixing formula and if boiling water before use is necessary. It is generally recommended to boil the water used for formula preparation for infants less than 3 months old. However, most caregivers are not doing this practice. Caregivers should consider the safety of their water source and the health status of the infant in addition to consulting with their health care provider regarding boiling water for use when preparing infant formula.
 - If boiled water is used, it should be boiled for one to two minutes and let cool no more than 30 minutes before mixing with formula.
 - Wash the top of the formula can and can opener with hot, soapy water.
 - Mix formula and water according to instructions on the can. Attach nipple and ring and shake well.
 - Use prepared formula immediately or refrigerate. FDA recommends following the manufacturer's storage instructions. Typically, storage instructions are to use refrigerated formula within 24 hours if it was made from powdered formula or within 48 hours if it was concentrated or ready-to-feed formula. Freezing infant formula is not recommended.
 - Throw out unused formula that has been unrefrigerated for one hour or more.
 - Discard any formula left in the bottle after a feeding.
 - Cover opened cans of powdered formula, store in a cool dry place, and use within four weeks.
 - Cover and refrigerate open cans of concentrated and ready-to-feed formula and use within 48 hours.
 - More information on preparing the different types of infant formula can be found in this handout: [Infant Formula Preparation](#).
- Never use a microwave to thaw or warm human milk or warm formula. A microwave heats unevenly, resulting in hot spots that can burn an infant's mouth.
- More information on food safety for infants can be found in this handout: [Infant Feeding: Tips for Food Safety](#).

POSSIBLE REFERRALS:

- If homeless or living in inadequate conditions, refer to social services for housing assistance.
- If the safety of the household water supply is unknown, refer to the local public health department for information on water testing.